Application No. 10/581,495 Amendment dated April 9, 2009 Reply to Office Action of December 9, 2009

#### **REMARKS**

#### Status of the Claims

Claims 1-7, 11-18, and 22-24 are currently pending. Claims 8-10 and 19-21 are presently canceled. Claims 1-7, 11, 12, 17, 22, and 24 are amended. Claims 1-7 are amended to clarify that the claims are directed to a vaccinia virus. Claim 11 is amended to specify that the smallpox vaccine contains the vaccinia virus. In addition, claims 1 and 12 are amended to clarify that the vaccinia virus (claim 1) or the vaccinia virus vector (claim 12) is generated from a vaccinia virus LC16, LC16m8 or LC16mO strain. Claim 11 is further amended to cancel the phrase "pharmaceutical composition." Claim 24 is amended to cancel the phrase "vaccine virus." Claim 17 is amended to depend from claim 14 in lieu of claim 12. Claim 22 is amended to clarify that the vector contains "at least one" foreign gene. No new matter is added by way of these amendments. Reconsideration is respectfully requested.

# Issues Under 35 U.S.C. § 112, Second Paragraph

Claims 1-7, 11-18, and 22-24 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. Specifically, the Examiner states that claim 1 is confusing because it is not clear if the claim is directed to a virus *per se* or a vaccine composition, *see* Office Action, page 2. The Examiner further asserts that it is unclear if claims 1 and 12 are limited to viruses of strains LC16, LC16mO, and LC16m8, *see* Office Action, page 2. In addition, the Examiner states that it is unclear whether or not claims 11 and 24 are directed to a pharmaceutical composition or a vaccine, *see* Office Action, page 2. The Examiner also states that it appears that claim 17 should depend from claim 14 instead of claim 12, *see* Office Action, page 2. Applicants respectfully traverse.

Although Applicants do not agree that the claims lack clarity, in order to expedite prosecution, claims 1-7, are amended. Specifically, as amended, claims 1-7 are directed to a vaccinia virus rather than a smallpox vaccine virus. The "vaccinia virus" is a virus that is used for a smallpox vaccine. Accordingly, independent claim 1, dependent claims 2-7, and dependent claim 11, which incorporates the elements of independent claim 1, are directed to a virus *per se*.

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Claims 1 and 12 are further amended to specify that the vaccinia virus (claim 1) or the vaccinia virus vector (claim 12) is generated from a vaccinia virus LC16 strain, LC16m8 strain, or LC16mO strain. Accordingly, the claims are clearly limited to viruses of the specified strains.

In addition, claims 11 and 24, as amended, are directed to a smallpox vaccine or a pharmaceutical composition, respectively. Accordingly, these claims are clear to an ordinary artisan.

Claim 17 is also amended to depend from claim 14, according to the Examiner's suggestion.

Based upon the foregoing amendments, Applicants believe the rejection is overcome. Accordingly, the Examiner is requested to withdrawal the rejections.

## Issues Under 35 U.S.C. § 102(b)

Claims 1, 2, 4, 11-13, 15, and 17 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Engelstad *et al.*, *Virology*, 1993, 194:627-637, *see* Office Action, page 3. Specifically, the Examiner states that, if the claims are not meant to be limited to strains LC16, LC16mO, and LC16m8, then the rejection applies, and Engelstad describes every limitation of the claims *see* Office Action, page 3.

As noted above, the independent claims specify that the vaccinia virus (claim 1) or vaccinia virus vector (claim 12) is generated from a vaccinia virus LC16 strain, LC16m8 strain or LC16mO strain. Accordingly, the rejection does not apply to the instantly amended claims. Based upon the foregoing, Applicants respectfully request withdrawal of the rejection.

### Allowable Subject Matter

The Examiner states that claims 1-7, 11-18, and 22-24 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. § 112, second paragraph, see Office Action, page 3. As noted above, Applicants believe the rejections under 35 U.S.C. § 112, second paragraph, are overcome and; accordingly, the application should be in condition for allowance.

# CONCLUSION

In view of the above amendment and remarks, applicants believe the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Linda T. Parker Reg. No. 46,046 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted

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